

Effectiveness of Mailing a CD ROM for Navy Recruiting

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Center for Naval Analyses

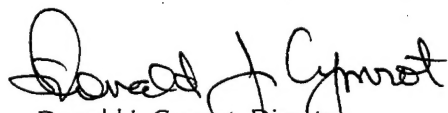
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13. ABSTRACT (Maximum 200 words) In June 1998, CNA completed a CD ROM for Navy Recruiting Command (CNRC). In January 1999, CNRC asked CNA to conduct an experiment that involved mailing 2,000 of these CDs to randomly selected students of community colleges and vocational institutions and following up to determine if any recipients were recruited. This annotated briefing reports on this experiment. The CD ROM proved to be a cost-effective method of generating enlisted contracts (and perhaps even officer contracts). We recommend that CNRC now make a mailing of the CD part of the annual national leads plan, incorporating lessons learned from this experiment. Other recommendations include experimenting with mailing in October and February, and including high school seniors. Finally, we recommend that CNRC consider creating additional CDs dedicated to all the recruiting fields and a CD ROM targeted to the 4-year college market as well.			
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Effectiveness of Mailing a CD ROM for Navy Recruiting

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In June 1998, CNA completed a CD ROM for Navy Recruiting Command (CNRC), which CNRC subsequently titled "Let the Journey Begin."

In January 1999, CNRC asked CNA to conduct an experiment that involved mailing 2,000 of these CDs to randomly selected students of community colleges and vocational institutions and following up to determine whether any recipients were recruited. This annotated briefing reports on this experiment.

Background

- CNA created the “Let the Journey Begin” CD ROM in 1998
- Purpose was to assist recruiters on community college campuses
- ASN suggested a mailing of CD ROMs

In 1998, as part of a self-initiated study, CNA created a CD ROM for CNRC. It was intended (a) to show how the medium could be used to assist recruiters and (b) to serve as a prototype for future efforts. We developed the CD for use in enlisted recruiting on community college campuses, particularly at job fairs and in the college unions. See [1] for more details.

This CD was one of only a few available to enlisted recruiters at that time. CNRC decided to use the prototype CD and make it available for all of enlisted recruiting—not just for the community college market. In addition, the Assistant Secretary of the Navy for Manpower and Reserve Affairs (ASN (M&RA)) suggested that CNRC experiment with mailing the CD to a random sample of students to determine its cost-effectiveness in generating contracts. All of the services spend large sums of money each year mailing form letters and brochures to targeted audiences, such as high school seniors. The cost-effectiveness of these efforts is well known; it often takes five to six separate mailings to prompt a response. The cost of reproducing a CD is about \$1.00 each, and it costs at least that much to produce a letter and enclosures for a mailing. The CD, therefore, had the potential to be at least as cost-effective as traditional mailing methods of recruiting.

By targeting a mailing of the CD ROM to community college students, CNRC would eliminate the possibility that the recipient could not view the material because virtually all college students have access to computers on campus.

Experiment Parameters

- CNRC requested name lists from community colleges from several districts
- 2,000 community college and vocational institution students were randomly chosen
- Selection criteria:
 - Address
 - Age
 - 75% male

To track the outcome of the mailing, we provided a single point of contact (POC) on a cardboard sleeve for the CD ROM. The POC information included the name, e-mail, and toll-free number of a member of an internet recruiting team, known as the “cyberspace team,” located at CNRC headquarters in Arlington, Virginia. (For more information about the Navy’s cyberspace team, see [2].) CNRC made plans in the summer of 1998 to make 36,000 copies of the CD ROM for distribution to each high school (about 26,000), community college (1,400), and enlisted recruiter (4,500) plus 2,000 as a fulfillment item, and 2,000 for the mailing experiment. The copies were available in mid-November.

During the summer of 1998, CNRC requested community college and vocational institution name lists from Education Specialists (EdSpecs) in four Navy Recruiting Districts (NRDs). It received over 30,000 names from which to draw the sample (see appendix A for lists of the NRDs and institutions). Each institution varied by the amount of information it included for each student. All except one provided both a name and an address, but, in some cases, that is all that was provided. Other institutions provided more complete information, such as age, social security number (SSN), major, GPA, and phone number.

In January 1999, CNRC asked CNA to conduct the experiment. We randomly selected 2,000 names from the original list, after first censoring observations that did not contain complete address information and deleting people we could determine were over the age of 27.*

*We chose 27 as an arbitrary cutoff, but the propensity to enlist is a decreasing function of age, and the vast majority of enlisted recruits are under this age.

Experience has shown that those with an Associate degree score higher on the Armed Forces Qualification Test (AFQT) and, therefore, qualify at a higher rate for critical ratings, such as the nuclear field and the Advanced Electronics/Computing Field (see [3]). Because these fields have a greater number of requirements for men than for women, we also weighted the sample to contain about 75 percent men.*

*We could not specify the number of men precisely because gender was not indicated on every record.

Timeline

- Mailed 1,936 CDs on 5 February 1999
- Mailed 200 followup letters on 10 February
- Throughout February and March, 300 CDs were returned as undeliverable
- An additional 236 CDs were recycled and mailed to new names
- Total of 1,872 CDs were mailed and presumably received

On 5 February 1999 (a Friday), we mailed 1,936* CDs, first class, using the standard 33-cent postage rate. The following Monday, approximately 30 of the CDs were returned from the central post office with postage due (11 cents each) because the CD sleeve does not conform to the standard size for the 33-cent rate. We tried to determine why so few CDs were returned for additional postage. The manager of the local post office informed us that different clerks processed the entire set, and apparently one clerk caught the mistake. The manager assured us that such a large mailing would not be delivered with postage due, that the other clerks most likely did not notice the need for additional postage, and that the remaining CDs were probably delivered. In any event, we decided to send a followup letter to a random subsample of 200 of the original 1,936, explaining the purpose of the CD, noting again the name and contact information of the POC, and apologizing in case they received the CD with postage due. We also thought that a followup letter provided an additional aspect of the experiment—whether a letter of explanation and a reminder of the POC would increase the response rate.

During the next several weeks, 300 CDs came back to CNA as undeliverable. Many of these also indicated that additional postage was due. Apparently, some of the clerks at the sending post office or clerks at the receiving office noticed that the CD was not a standard size. It is impossible to determine what percentage of the total CDs were flagged in this way.

CDs that were returned in good condition were mailed out again. In total, 1,872 CDs were ultimately delivered.

*This was the total number of CDs available to us for mailing.

Outcome

- Contracts
 - Method for matching
 - 20 confirmed, 2 more potential
- Conversion rate for CDs and letters

The most important measure of the effectiveness of the experiment, at least in the long term, is how many recipients were ultimately recruited. We have compared the names of those who received a CD to names of new contracts in the Navy's enlisted reservation database (PRIDE) for February through August. If the SSN of each recipient were known, we would be able to say with certainty how many contracts resulted. However, we had the SSNs of only a relatively small number in the sample. For those for whom we did not have SSNs, we attempted to match on the following criteria: last name and first name must match completely, middle name or middle initial must not be in conflict (in other words, in PRIDE the middle name may be John, and in the sample the middle name is simply listed as J, or no letter is provided), and age must be 19 or older.

We could have narrowed the criteria further by requiring a match in the state or by requiring the person to have at least 12 years of school and a high school degree. We decided against this, however, when the cyberspace recruiters called five or six recipients and learned that some had already graduated from the 2-year college and were either attending a 4-year college in another state or had found a job in another location. In addition, we learned that one of the people who received the CD was a high school dropout who had also dropped out of college. This person was recruited, but had been working with a recruiter for about a year. Consequently, we decided to check all accessions that matched on just the simple criteria outlined.

We requested that the cyberspace recruiters follow up with each potential CD ROM contract with a phone call. If no phone number was available, we asked that they call the recruiting station. Using this method, they were able to confirm 20 contracts, and two other potential recruits (see appendix B for a complete list of names and station IDs of the 20 confirmed and 2 potential recruits). For most of the 20 confirmed contracts, the cyberspace recruiters could only contact the recruiter because most of the recruits had already shipped to boot camp. In each of these cases, the recruiter had knowledge that the recruit had received the CD ROM because he or she had mentioned it to the recruiter. The two potential recruits matched in name, had already shipped to boot camp, but had not mentioned the CD ROM to their recruiters. However, the recruiters for these two contracts identified them as coming from a national lead that had been sent in either March or May—after the CD ROM had been sent.

Assuming that each recruit and recruiter understood that we were inquiring about the “Let the Journey Begin” CD, the conversion rate of CDs to contracts is 1 percent. The follow-up letter did not increase this rate. Of the 20 known contracts, only 1 received the letter. This is a .5-percent conversion rate (1 divided by 200), compared to the 1-percent rate (19 divided by 1,672) of those who did not receive the letter.

Cost-Effectiveness

- Cost of each contract for CD: \$650
- Cost of contract from workforce mailing for FY 1996: \$6,492
- Average cost from all national leads sources for FY 1996: \$1,232

Is mailing a recruiting CD ROM a cost-effective method for generating enlisted contracts? We believe that our results indicate that it is. Consider the following. It costs about \$1.30 to reproduce and mail a CD ROM. Adding roughly \$10,000 in labor costs to gather name lists and to prepare and mail the CDs, as well as the followup letter to the subsample of 200, the total cost of this leads-generating activity was about \$13,000. This translates to a cost per enlisted contract for this experiment of \$650. For comparison, in FY 1996, the cost per enlisted contract from direct mail efforts to the workforce* was \$6,492 (according to the Cost Per Lead Report, FY 1996 Funding, prepared 13 April 1998). Using this as a benchmark, the contracts from this effort have cost about one-tenth of other direct mail efforts. In fact, these contracts cost less than the average cost of all national leads-generated enlisted contracts, which in FY 1996 was \$1,232.**

*Community college students are in the workforce, which we define as anyone in the recruitable population who is not in high school—including both high school graduates and dropouts.

**Some of these recruits might have joined the Navy even if they had never received the CD ROM, but this is something that we can't measure. However, the same is true of any CNRC leads-generating activity. The typical method of evaluating the cost-effectiveness of all of these types of activities is simply to count all recruits as being derived from that particular effort. By following the same methodology, our cost comparison to other leads-generating efforts is appropriate.

Of course, other contracts could have resulted from this mailing, but we are not able to identify more. For instance, a CD ROM could be passed around to acquaintances of the recipient more frequently than a form letter sent from the Navy. Under such circumstances, it would not be possible to identify any of these types of recruits. We also might have missed recruits resulting from the CD ROM if the name that was provided to us by the colleges was not the official name of the student. In other words, if the college gave us the name of "Skip Thomas," but his real name was Robert Thomas, we would not have been able to identify Robert as a contract resulting from the CD ROM.

Lessons Learned

- Packaging
- Postage
- POC
- Nature of name lists

Even though this experiment has proved to be cost-effective, we believe it could have been even more successful, for a variety of reasons. Most of these reasons are valuable lessons for future endeavors; some are one-time difficulties. We will describe each.

First, we learned that the packaging of the CD ROM was not optimal. We printed address labels and attached them to the cellophane wrapper around the cardboard sleeve. However, when some of the CDs were returned, we noted that the ink used to cancel the stamp smeared on the cellophane, often bleeding into the address or otherwise making the CD very messy to handle. To recycle the CD, we needed to peel the label and the stamps off, which often destroyed the cellophane wrap, making it impossible to reuse the CD. We recommend that future mailings include a postage permit on the cardboard sleeve itself, so that no postage or cancellation is required. A postage permit would also have eliminated the problem of not using the correct postage.

The second major difficulty we encountered was the result of a number of concurrent events. When CNRC created the sleeve in June 1998, they envisioned that the experiment could begin the following September or October. CNRC was moving the location of the headquarters from Arlington, VA, to Millington, TN, from the fall of 1998 through June 1999. However, they knew that the cyberspace recruiters were not scheduled to move until the end of that time frame. Thus, they believed that using a name, phone number, and e-mail account for one of these recruiters would not present any difficulties. However, the delivery of the CDs was delayed until November, and CNRC decided that mailing the CDs at that time was not optimal because college students would be concentrating on finals and their holiday break.

Thus, CNRC decided to postpone the experiment until the early part of the spring semester. By that time, the recruiter who had been appointed as the POC for the CD ROM had been reassigned, and the remaining recruiter was on leave for a large portion of March and April. Personnel were reassigned to the cyberspace effort on a temporary, ad hoc basis, but they were not aware of the ongoing experiment. We believe that some recipients of the CD may have called the toll-free number and asked for the POC by name. When they were informed that he no longer worked there, they may have hung up. We also know of one recipient who e-mailed the POC in response to the CD ROM, but that e-mail was mistakenly deleted before the person could be contacted. By mid-May, there was no longer anyone at CNRC to answer the toll-free number printed on the CD, and the e-mail address was no longer valid. While these difficulties with the cyberspace team have now been resolved, we do not believe that we can accurately assess how many recipients actually tried to contact the POC identified on the CD sleeve, nor can we determine whether others might have been recruited had these problems not occurred.

A final concern with the name lists is the accuracy and timeliness of their use. We believe that many of the CDs would not have been returned had the lists been requested closer to the time of the mailing. We did not have information concerning the college class of the student, but certainly the lists contained the names of students who graduated last May (recall that the lists were requested in the late spring and early summer of 1998). Some of these people either went to a 4-year college (and would therefore have benefited more by information for officer programs) or were employed and had moved out of their parents' houses. From the feedback we received from the few recipients who were called, in both of these types of cases, the parents had not forwarded the CD to their child or returned it to us. Thus, we cannot accurately determine how many of the CDs actually reached the intended recipients.

Recommendations

- Incorporate the CD ROM in national leads plan
 - More copies need to be made
 - Timing is important
- Experiment with mailing in October and February
- Create more CD ROMs

The CD ROM has proved to be a cost-effective method of generating enlisted contracts (and perhaps even officer contracts). We recommend that CNRC now make a mailing of the CD part of the annual national leads plan, incorporating lessons learned from this experiment. In particular, we believe that each CD should provide the new cyberspace POC information (using generic title of "Career Counselor" instead of a person's name). Headquarters has now moved, and eight recruiters are assigned to this effort, so the cyberspace difficulties described previously should no longer be a problem.

A postage permit should be incorporated into the new sleeve, and it might be beneficial to enclose a letter with each CD explaining what the CD contains, why it is being sent, how to run it, and how to reach the cyberspace POC. While the letter has not proved to be more effective, our experiment sent it as a separate mailing. It would not cost much more to enclose this information on a small card inserted into the CD. For tracking purposes, a separate e-mail account could be established for this effort, such as *CD@cnrc.navy.mil*.

We also believe that the community college market is a good one to receive the CD because we know that these students have access to computers. However, the next attempts might also include some high school seniors to determine the cost-effectiveness of that market. February is a good time of year. This is the time when graduating students put the most effort into their job search. Many community college students graduate in December, however, so a smaller mailing could be done in October to students graduating in December.

Given the time required to create a new sleeve and reproduce the CD, it is not possible to do a mailing in October 1999.

Ultimately, the CD may be useful for local Navy Recruiting Districts as a leads-generating tool, particularly because community college name lists are typically gathered at the district level. For their use, however, they would most likely want to put the NRD leads personnel as the POC. This would require separate sleeves for each NRD, and perhaps each NRD would then be responsible for reproducing the CD to meet their own particular needs.

Finally, we recommend that CNRC consider creating additional CDs, building on the feedback from "Let the Journey Begin." We originally included information on just four recruiting fields: nuclear, advanced electronics/computing, advanced technical, and medical. If CNRC begins to recruit more to occupations, perhaps a new CD ROM dedicated to all of the fields would be more useful. Also, a CD ROM targeted to the 4-year college market may also prove to be cost-effective.

Appendix A: List of colleges and vocational institutes

<u>NRD</u>	<u>Name of Institution</u>
Buffalo, NY	Briarwood College Bryant and Stratton Houstaonic Community-Technical College Mater Dei College Orange County Community College SUNY
Jacksonville, FL	Bainbridge College Central Florida Community College Chipola Junior College
St. Louis, MO	Arkansas State University Belleville Area College East Central College Forest John A. Logan College Shelby State Community College Southeastern Illinois College
Los Angeles, CA	Ventura College

Appendix B: Names and station IDs of CD ROM recipients who have contracted with the Navy

<u>Name</u>	<u>Station ID</u>
Jason Ash	531230
Michael Bartlett	521532
Greg Brown	315020
Jason Burt	840560
Shawn Clark	840530
Jason Davis	830490
Jason Hill	838400
James Jones	120418
David Kline	846174
Jason Miller	312160
Mathew Miller	542120
Angel Perez	840200
David Pierce	527600
Jason Shelton	839321
Eric Smith	547260
Michael Smith	103403
Anthony Taylor	527601
Christopher Williams	314080
Michael Wilson	531070
Jason Young	547248

Potential recruits

Michael McDonald	838300
Joseph Smith	547035

References

- [1] Peggy A. Golfin. *A Summary of Navy Recruiting Efforts in Community Colleges in FY 1997*, Mar 1998 (CNA Research Memorandum 97-139)
- [2] Peggy A. Golfin and Michael Y. Katz. *Effectiveness of the Navy's Cyberspace Recruiting Efforts During CY 1998*, Jun 1999 (CNA Research Memorandum 99-14)
- [3] Peggy A. Golfin. *New Markets for Recruiting Quality Enlisted Personnel*, Mar 1996 (CNA Research Memorandum 95-221)

Distribution list

Annotated Briefing 99-80

SNDL

A2A CNRC

Attn: 00
Attn: 00B
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